2025

ALIGNMENT ASSESSMENT

RF-001-FR-15072024 HÉRAULT, OCCITANIE, FRANCE

Les Arches Castriotes

Racines de France

June 2, 2025

The regenerative
Standard

ALIGNMENT EVALUATION FOR THE PROJECT SUBMITTED BY RACINES DE FRANCE, "LES ARCHES CASTRIOTES", IDENTIFIED WITH THE UNIQUE CODE RF-001-FR-15072024 HÉRAULT, OCCITANIE, FRANCE.

CONTEXT

As part of the certification process for positive nature projects and the subsequent issuance of Verified Positive Nature Credits (VNPCs) under the Ases On-Chain Protocol (aOCP) Certification Program, the project developer "Racines de France" presented the "Les Arches Castriotes" project. This project activity is in the aOCP onboarding stage. Compliance with the aOCP principles, values, standards, and requirements is a fundamental requirement for participation in the program. This assessment is carried out during the onboarding stage, prior to the registration of project activities, as stipulated in the aOCP Procedures document, which describes all the stages a project goes through from its inception to issuance, sale, and purchase.

Since the Project's activities have already been implemented before the start of the onboarding process, it participates as a Modality B project. According to the aOCP Procedures document, Modality B projects must go through the following process to be registered:

1. Application through the Project Submission Form (PSF), completed by the project proponent.
2. Documentation review and alignment assessment, conducted by the aOCP Operations Team.
3. Payment of incorporation fee by the project proponent.
4. Project pre-registration, carried out by the aOCP Operations Team.
5. On-site validation of the Project's implemented activities, carried out by the OCP Operations Team.
6. Preparation of Baseline Report, Monitoring Plan, Credit Issuance Contingent Table, carried out by the aOCP Operations Team.
7. Project proponent agreement.
8. Project Validation by an external and independent Validator, delivering a Project Validation Report.
9. Project registration letter and issuance of first credits, carried out by the aOCP Operations Team.

This report corresponds to step 2, Alignment Assessment.

ALIGNMENT ASSESSMENT

The aOCP is based on sound principles intended to ensure that Project activities seeking registration and accreditation with VNPC demonstrably and positively impact ecosystems in a real, measurable, permanent and additional manner, while avoiding any harm to ecosystems and/or society.

Compliance with the aOCP principles, values, standards, and requirements is a fundamental requirement for participation in the program. This assessment is conducted during the onboarding phase, prior to the registration of project activities. This mandate is stipulated in the aOCP Procedures document, which describes all stages of a project from its inception to the issuance, marketing, and retirement of VNPCs.

A positive result of the Alignment Assessment with the principles, values, rules and requirements of aOCP confirms that the proposed Project activity:

1. It belongs to one of the following types of projects:
    a. Forest management, including afforestation, reforestation and revegetation (ARR)
    b. Regenerative agriculture
    c. Silvopastoral management
    d. Urban Forests / Climate Action of Individual Trees
    e. Biochar
2. Adheres to environmental and social requirements of doing no harm.
3. It is expected to have positive impacts on biodiversity.
4. The Project was developed less than 5 years ago.
5. Meets the additionality criteria for the requested VNPCs.
6. Has documentation proving ownership of the land or an agreement for the duration of the project.
7. The Project area has not been degraded, deforested or burned in the last 24 months.
8. For projects applying for biodiversity credits for species conservation, a positive Alignment Assessment also confirms that the proposed project area has a high conservation value due to its preservation status.
9. Areas where the average species abundance indicator (also reported as biodiversity integrity) is less than 0.80, indicating that biodiversity is at risk and requires restoration actions, are eligible for biodiversity restoration credits.
10. The key species for biodiversity conservation reported by the Project proponent are recognized as Key Species according to the criteria established in the aOCP Methodology for the evaluation of biodiversity for species conservation V1.0.

Certain circumstances may result in an unfavorable evaluation and, if not satisfactorily rectified or clarified, could lead to the rejection of the Project activity registration within the aOCP.

These circumstances include:

- Failure to comply with the principles, values, standards and requirements of aOCP,
- Issuance of contradictory and/or false statements by the proponent or developer of the Project,
- Decreased confidence in the Project activity's ability to deliver the intended ecosystem and/or societal benefits due to an inadequate risk management plan, which includes a comprehensive assessment of internal, external, and natural risks, as well as risk mitigation and contingency planning.

According to the information provided by the Project Proponent in the Project Submission Form (PSF), the project “Les Arches Castriotes,” managed by Racines de France, is a regenerative agriculture initiative located in Hérault, Occitanie, France. Spanning 4.06 hectares and active from 2018 to 2025, the project aimed to revitalize soil that had been degraded by 50 years of conventional viticulture. Key actions included the reintroduction of trees and permanent ground cover to restore soil health, combat erosion, improve water retention, sequester carbon, and enhance biodiversity. The initiative also sought to support local food production and reduce land abandonment. A total of 60 native species were used. Soil restoration activities were also incorporated, and the project has applied for Carbon Credits (VCC).

The project area and sampling points used for the present analysis are shown in Figure 1.

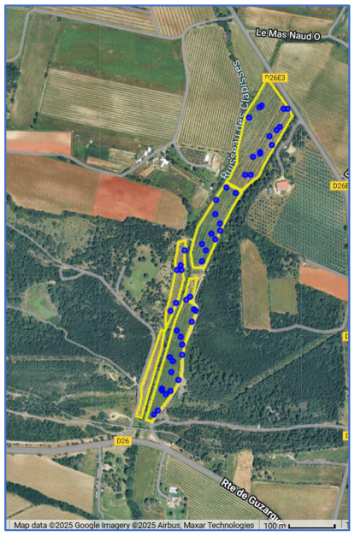


Figure 1. Project area and sampling points used for NDVI analysis.

METHOD OF ANALYSIS

The proposed Project activity was assessed to determine its alignment with aOCP rules and requirements, using the following checklist.

Alignment criteria	Y: Yes N: No P: Partially NA: Not applicable	Comments
Does the project belong to one of the following types? • Forest management, including ARR • Regenerative agriculture • Silvopastoral management • Urban forests / individual climate action • Biochar	**Y**	The project falls into the regenerative agriculture category.
Does the project meet the requirement of not causing environmental and social harm?	**Y**	
Has documentation proving landownership or an agreement been provided for the duration of the project?	**N**	The project has not provided the documentation of the agreement with the landowners.
If the project has already started, is it less than 5 years old?	**Y**	The project began in September 2018 and ended in May 2025.
Are the species considered for reforestation classified as “invasive” or “exotic”?	*	Species identities are not provided in the PSF.
Is the project expected to have positive impacts on biodiversity?	**Y**	The introduction of 60 species to the project area will positively impact biodiversity.
Do the requested VNPCs meet the additionality criteria?	**Y**	
Have any trees or shrubs been cut down in the project area in the last 2 years?	**N**	
Is the project area located in a Protected Natural Area?	**N**	

Alignment criteria	Y: Yes N: No P: Partially NA: Not applicable	Comments
For biodiversity restoration credits, the biodiversity integrity indicator is < 80%.	**Y**	The biodiversity integrity index is 33.88%.
For biodiversity conservation credits, the biodiversity integrity indicator is > 80%.	**NA**	
Are the proposed keystone species aligned with the aOCP criteria for keystone species?	**NA**	
For carbon credits, what is the value of the ARR Site Suitability Statistic?	**N**	98.4% Eligible, project within predominant Crops (Suitable).
For carbon credits, what is the value of the New Project Performance Benchmark Estimation tool?	**N**	The performance benchmark is likely to be negligible or low.

Historical land cover dynamics were analyzed using high-resolution Google Earth imagery and the Normalized Difference Vegetation Index (NDVI). NDVI is a widely used remote sensing metric that provides information on the density and health of vegetation in a specific area. It is calculated from the difference between the reflectance of near-infrared light and red light from the Earth's surface.

By analyzing historical land cover, NDVI allows us to track changes in vegetation over time. By examining archived NDVI data, it is possible to observe trends in vegetation density, identify changes in land-use patterns, and monitor the effects of factors such as urbanization, deforestation, or natural disasters.

NDVI provides information on the quantity and quality of vegetation in a given area. It ranges from -1 to +1, with values close to +1 indicating dense, healthy vegetation, while values close to -1 suggest the absence of vegetation or the presence of artificial surfaces.

Using Google Earth Engine, the maximum monthly NDVI was calculated from January 2019 to April 2025 using Sentinel-2 satellite imagery. Random control points were then plotted on each property (Figure 1), and the monthly NDVI value at each point was extracted.

Google Colab was used to generate boxplots showing the distribution of NDVI values at the control points. A boxplot is a standardized way of displaying the distribution of a data set based on its five-point summary: the minimum, the first quartile [Q1], the median, the third quartile [Q3], and the maximum. Boxplots provide information about outliers, data symmetry, the degree of clustering, and whether and how the data are skewed.[1].

Biodiversity integrity quantifies the impact humans have had on the integrity of species communities. Anthropogenic pressures, such as land-use conversion, cause dramatic changes in the composition of species communities, and this layer illustrates these changes by focusing on the impact of forest changes on biodiversity integrity[2]. This information was evaluated through the Orbify platform.

RESULTS

Analysis of Google Earth imagery (Figure 2) reveals notable changes in vegetation cover between 2020 and 2024. The 2020 image shows limited vegetation, reflecting the early impacts of the project initiated in September 2018. By 2024, there is a marked increase in vegetation density, with the project area appearing significantly greener and more abundant. This positive trend highlights the success of reforestation efforts and suggests continued ecological improvement in the years ahead.

[1]Galarnyk, M. Understanding box plots.https://builtin.com/data-science/boxplot

[2]Hill, S.L., Arnell, A., Maney, C., Butchart, S.H., Hilton-Taylor, C., Ciciarelli, C., ... and Burgess, N.D. (2019). Measuring the status and change of forest biodiversity globally. Frontiers in Forests and Global Change, 2, 70.

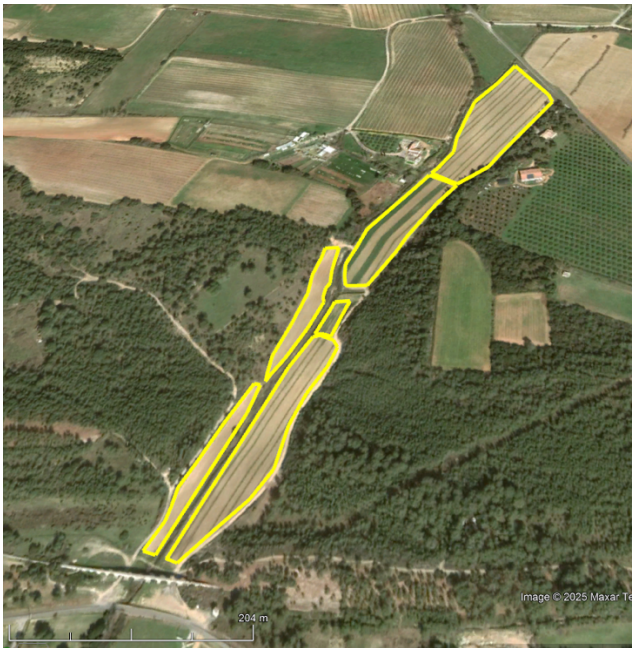
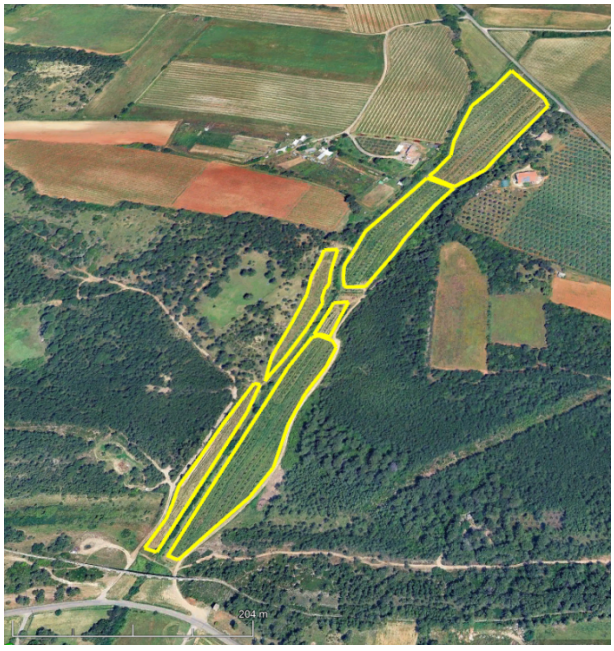
September 2020	May 2024
	

Figure 2. Google Earth images of the Project area from 2020 and 2024.

The NDVI analysis from 2019 to 2025 (Figure 3) indicates a clear upward trend in vegetation health following the launch of the regenerative project in September 2018. While initial gains in 2019 were modest, the 12-month moving average rose steadily from 0.387 at the end of 2019 to over 0.66 by late 2023, with significant growth occurring during 2022–2023. This consistent increase highlights the project's positive ecological impact, and the continued high NDVI values through 2024–2025 suggest the landscape has entered a phase of stable recovery and ecological resilience.

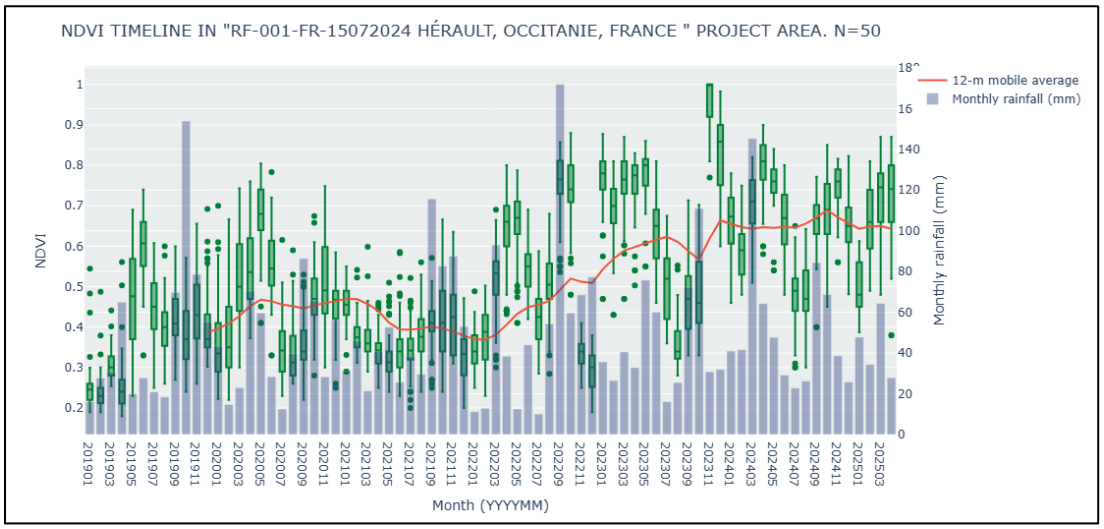


Figure 3. Monthly NDVI and precipitation from January 2019 to April 2025

Biodiversity integrity remained stable at 33.88% between 2017 and 2020 (Figure 4); therefore, this value is aligned with biodiversity restoration goals.

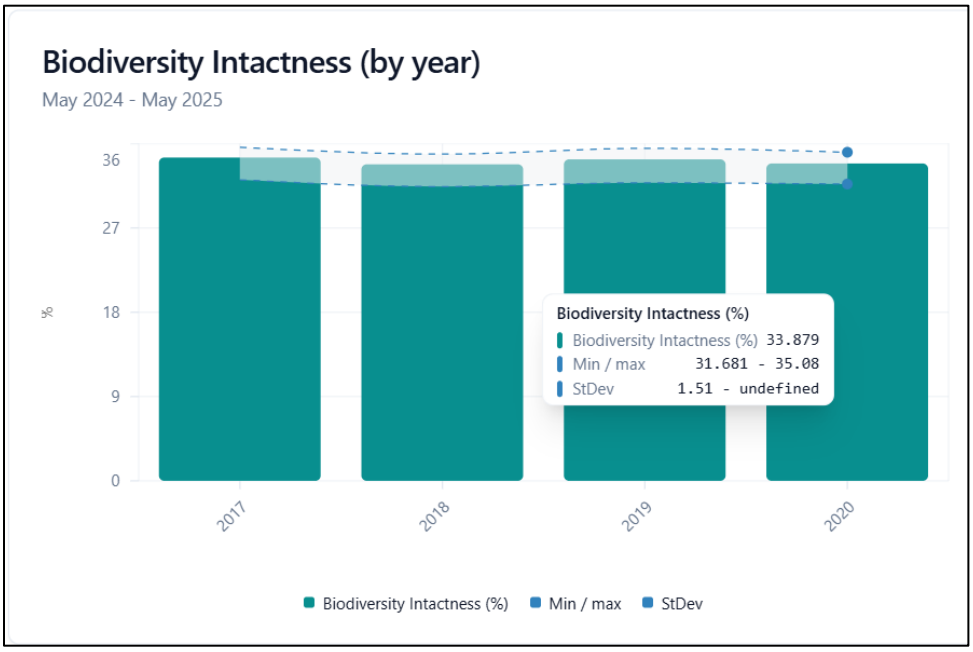


Figure 4. Biodiversity integrity

The “Les Arches Castriotes” project integrates a strong biodiversity conservation strategy by safeguarding habitats critical to rare and endangered species and promoting ecological connectivity. It avoids converting high conservation value ecosystems like natural forests, grasslands, and wetlands. By employing 60 native species, the project fosters ecological resilience and native biodiversity. Activities are designed to minimize soil degradation, water resource pressure, and pollution, while promoting sustainable agroforestry practices. These efforts contribute to long-term habitat conservation, increased biodiversity, and overall ecosystem resilience.

CONCLUSIONS

a) The project falls into the regenerative agriculture category, aligning with the criteria established by the aOCP Program.
b) Activities began in September 2018 and finished in May 2025, which meets the requirement that projects be no more than five years old at the time of this alignment assessment.
c) The 60 species that were used are listed as native in the PSF; however, the developer has not provided the precise species identification.
d) The project area has not been deforested in the last two years, which is in line with the criterion of not causing environmental and/or ecological damage.
e) The project area is not located on a Protected Natural Area, which meets the additionality criterion.
f) The project area has a biodiversity integrity of 33.88%, which is aligned with biodiversity restoration objectives.
g) The Project Developer **does not yet have documentation proving ownership** of the land or an agreement with the landowners for the duration of the project, which does not meet the criterion of not generating social harm.
h) The project presents a solid foundation for habitat and biodiversity conservation. However, some key details still need to be provided to ensure the project meets the eligibility requirements for registration. Therefore, the following additional information is requested:
    1. Identification of species implemented in the project.
    2. Clear geolocation of project activities.
    3. Documentation proving ownership of the land or the agreement with the landowners for the duration of the project.
i) Once the additional information requested in section "h" has been provided, the project may be eligible for registration under Modality B of the aOCP, which will allow it to advance to the next stages of evaluation for the generation of Verified Carbon Credits (VCC).